In the claims:

1-21. previously cancelled.

22. (previously added) A composition comprising a purified non-naturally-occurring DNA polymerase, or fragments thereof, capable of DNA synthetic activity, said polymerase derived from *Thermotoga neapolitana*.

23. (previously added) A composition comprising a mutant DNA polymerase, said mutant polymerase derived from a *Thermotoga neapolitana* DNA polymerase.

24. (previously added) The composition of Claim 23, wherein said mutant DNA polymerase comprises a mutation that reduces a 3'-5' exonuclease activity of said DNA polymerase.

25. (previously added) The composition of Claim 23, wherein said mutant DNA polymerase comprises a mutation that reduces a 5'-3' exonuclease activity of said DNA polymerase.

26. (previously added) The composition of Claim 23, wherein said mutant DNA polymerase comprises a mutation resulting in said DNA polymerase having reduced discrimination against dideoxynucleotides.

27. (previously added) The mutant DNA polymerase of Claim 23, wherein said mutant DNA polymerase comprises one or more amino acid substitutions.

28. (previously added) The mutant DNA polymerase of Claim 23, wherein said mutant DNA polymerase comprises one or more amino acid deletions.

29. (previously added) The composition of Claim 23, wherein said mutant polymerase is devoid of an N-terminal 5'-3' exonuclease domain.

30. (previously added) The composition of Claim 23, wherein said mutant polymerase is devoid of the 283 N-terminal amino acids of native *Thermotoga neapolitana* DNA polymerase.

31. (previously added) A composition comprising an isolated nucleic acid encoding a mutant *Thermotoga neapolitana* DNA polymerase.

32. (previously added) The composition of Claim 31, wherein said mutant DNA polymerase comprises a mutation that reduces a 3'-5' exonuclease activity of said DNA polymerase.

33. (previously added) The composition of Claim 31, wherein said mutant DNA polymerase comprises a mutation that reduces a 5'-3' exonuclease activity of said DNA polymerase.

34. (previously added) The composition of Claim 31, wherein said mutant DNA polymerase comprises a mutation resulting in said DNA polymerase having reduced discrimination against dideoxynucleotides.

35. (previously added) The composition of Claim 31, wherein said DNA molecule is selected from the group consisting of pM284, pD323E, and pD323,389A.

36. (previously added) The composition of Claim 31, wherein said DNA molecule further comprises expression control elements.

37. (previously added) The composition of Claim 36, wherein said expression control elements comprise an inducible promoter.

38. (previously added) A method of producing a mutant *Thermotoga neapolitana* DNA polymerase, said method comprising:

(a) culturing a cellular host cell comprising a gene encoding a mutant *Thermotoga neapolitana* DNA polymerase;

(b) expressing said gene; and

(c) isolating said mutant *Thermotoga neapolitana* DNA polymerase from said host cell.

39. (previously added) The method of Claim 38, wherein said host is *E. coli*.

40. (previously added) A mutant Thermotoga neapolitana DNA polymerase having a mutation that substantially reduces or eliminates 3'-5' exonuclease activity of said polymerase, wherein said mutation is in the 3'-5' exonuclease domain of said polymerase, and further wherein said mutant Thermotoga neapolitana DNA polymerase is a Pol I-type DNA polymerase.

41. (previously added) An isolated DNA molecule comprising a DNA sequence encoding a mutant Thermotoga neapolitana DNA polymerase having a mutation that substantially reduces or eliminates 3'-5' exonuclease activity of said polymerase, wherein said mutation is in the 3'-5' exonuclease domain of said polymerase, and further wherein said mutant Thermotoga neapolitana DNA polymerase is a Pol I-type DNA polymerase.

42. (previously added) A recombinant host cell comprising a DNA sequence encoding a mutant Thermotoga neapolitana DNA polymerase having a mutation that substantially reduces or eliminates 3'-5' exonuclease activity of said polymerase, wherein said mutation is in the 3'-5' exonuclease domain of said polymerase, and further wherein said mutant Thermotoga neapolitana DNA polymerase is a Pol I-type DNA polymerase.

43. (previously added) A method of producing a mutant Thermotoga neapolitana DNA polymerase, said method comprising:

(a) culturing a host cell comprising a gene encoding a mutant Thermotoga neapolitana DNA polymerase having a mutation that substantially reduces or eliminates 3'-5' exonuclease activity of said polymerase, wherein said mutation is in the 3'-5' exonuclease domain of said

polymerase, and further wherein said mutant Thermotoga neapolitana DNA polymerase is a Pol I-type DNA polymerase;

(b) expressing said gene; and

(c) isolating said mutant Thermotoga neapolitana DNA polymerase from said host cell.

44. (previously added) A mutant Thermotoga neapolitana DNA polymerase having a mutation that substantially reduces or eliminates 5'-3' exonuclease activity of said polymerase, wherein said mutation is in the 5'-3' exonuclease domain of said polymerase, and further wherein said mutant Thermotoga neapolitana DNA polymerase is a Pol I-type DNA polymerase.

45. (previously added) An isolated DNA molecule comprising a DNA sequence encoding a mutant Thermotoga neapolitana DNA polymerase having a mutation that substantially reduces or eliminates 5'-3' exonuclease activity of said polymerase, wherein said mutation is in the 5'-3' exonuclease domain of said polymerase, and further wherein said mutant Thermotoga neapolitana DNA polymerase is a Pol I-type DNA polymerase.

46. (previously added) A recombinant host cell comprising a DNA sequence encoding a mutant Thermotoga neapolitana DNA polymerase having a mutation that substantially reduces or eliminates 5'-3' exonuclease activity of said polymerase, wherein said mutation is in the 5'-3' exonuclease domain of said polymerase, and further wherein said mutant Thermotoga neapolitana DNA polymerase is a Pol I-type DNA polymerase.

47. (previously added) A method of producing a mutant Thermotoga neapolitana DNA polymerase, said method comprising:

(a) culturing a host cell comprising a gene encoding a mutant Thermotoga neapolitana DNA polymerase having a mutation that substantially reduces or eliminates 5'-3' exonuclease activity of said polymerase, wherein said mutation is in the 5'-3' exonuclease domain of said polymerase, and further wherein said mutant Thermotoga neapolitana DNA polymerase is a Pol I-type DNA polymerase;

(b) expressing said gene; and